Compaq NPD Summer 1997 New Product Announcement Video Outline 6/16/97

- Hearing-impaired transcript statement

- Introduction
  - Compaq Networking Products Division began in Fall 1997 with introduction of over 30 new products.
  - The video announcing that event is included with this tape (show video on TV in background?)
  - For Summer 1997, Compaq is adding new pieces to the line, that will go even farther to fill networks' needs
  - This video will show you what these new pieces of equipment are, and how they can be used to take your network to the next step in functionality.
  - Announcement was made in June, 1997
  - Wide range of products includes:
    - New NICs
    - CNMS Upgrade
    - 8500 Router Enhancements
    - New switches
    - New hubs
    - New client modems

- Networking Products
  - Additions to Networking Line
  - Service aspects are very similar to other tape - removing power supplies, adding media expansion ports, configuring uplink switches. See other tape for those procedures.
  - See MSG for details on LED patterns, exact switch settings, etc.
  - For new networking products, we'll focus on the new features, and on how they can be used to bring new functionality to existing networks.

- NICs
  - New Token Ring adapters
  - Replace old TR 4/16 adapters
  - Compaq Netelligent 4/16 TR ISA UTP/STP Controller
  - First ever ISA Token Ring controller with plug and play support (PCI version already had it)
  - Compaq Netelligent 4/16 TR PCI UTP/STP Controller
  - New features in both:
    - Driver enhancements:
    - - improve performance and reduce CPU utilization
    - - update OS platform support (Win 95 OSR2, NT 4.0)
    - Scalable Clock Architecture (allows for the frequency adjustment of the onboard clock to either 4 or 6 MHz, increasing packet processing rate capability by over 40% for improved network throughput.
  - Both still have:
    - 4 or 16 MB/sec. throughput
    - 1 RJ45 port & 1 DB9 port
    - 1 Link insertion LED, 1 activity LED
    - Bus-mastering
    - NICStart Utility

- - Testing and verification utility
- - Compaq Advanced Network Fault Detection and Correction - Provides port redundancy in the event of a NIC port failure. It can be used by two Netelligent NICs in different expansion slots or the Netelligent Dual Port NIC. Can put two cards in server, for redundancy
- TI ThunderLAN Adaptive Performance Optimization
- - TI firmware
- - dynamically sets pre-transmit buffering, transmit pacing, and reduces CPU utilization by combining transmission interrupt requests
- Three-year limited warranty

❖ Compaq Netelligent 10 T/2 PCI UTP/Coax Controller
- ➢ New PCI version of existing Netelligent ISA T/2 card
- ➢ 1 RJ45 port & 1 BNC port
- ➢ Link and network activity LEDs
- ➢ Full duplex support for 10Base-T (20 MB/sec.)
- ➢ Plug and play
- ➢ Includes NICstart utility
- ➢ Includes TI ThunderLAN chipset

❖ Service on all NICs
- ➢ Not necessary. Like others, return if defective

❖ Hubs
- ➢ Following industry-standard conventions, repeaters are now designated hubs (more specifically, they are repeater hubs)

❖ 1005, 1009B, 1017 A/B Repeater Hubs
- ➢ Designed for small office networks (less than 100 nodes)
- ➢ Can be linked together in a simple LAN conifguration through the uplink port without configuration software or switches.
- ➢ Ideal for first-time LAN setup
- ➢ Can be used to create LANs that access the Internet or intranets
- ➢ 1005 - 5 RJ-45 ports, including 1 uplink
- ➢ Multicolored LEDs show power, link, collision, port partition, and port traffic.
- ➢ Network Utilization Monitor provides network status for easy troubleshooting and informs customer when an additional hub or segment may be needed on network.
- ➢ Autopartition improves performance by protecting a network from excessive collisions.
- ➢ Use of 1005 in network:
- ➢ 1005 can create “mini-LANs” in areas where individuals have two or more peripheral devices in their private offices
- ➢ 1009B - 8 RJ-45 ports including 1 uplink port & 1 fixed BNC
- ➢ Same LEDs
- ➢ Same NUM and autopartition
- ➢ 1009Bs BNC and AUI ports can be used for connecting to existing 10Base2 or 10Base5 backbones
- ➢ 1009B is plug and play solution for most network installations - no special software required to link stations together in a simple LAN configuration
- ➢ 1017A/B - 16 RJ-45 ports including 1 uplink port, 1 fixed BNC, and 1 fixed AUI port.
- ➢ Same LEDs, NUM and autopartition
- ➢ 1017A/B auto-senses between BNC and AUI ports (AUI port will take precedence if both are connected)

- 1017A/B also offers plug and play capability, but fits into virtually every network scenario - from entry-level installations to network expansion.
- With preceding in mind, you can see how the 1000 series of hubs can be used to build or extend a network: (animation)
  - Connect 1017A/B and 1009B hubs to network backbone.
  - Connect 1005 ômini-LANsö to 1009B or 1017A/B
  - Use NUM to show when additional hub or segment is needed.

❖ 2724/2824 Dual Speed Hubs
- First port-level, auto-sensing dual speed stackable hubs on market.
- 24 ports per unit
- Internally switches between 10 and 100 MB/sec. repeaters, providing full connectivity for every user, regardless of speed.
- Have internal bridge
- Both are plug and play - not ôplug and re-plugö - ending visits to the wiring closet as 10 and 100 MB/sec. users move or upgrade.
- Auto-negotiating 10 Mb/s and 100 Mb/s on every port
- 2724 unmanaged
- 2824 managed
- CNMS is included
- SNMP Management with 1-3 & 9 RMON (gathers statistics without creating additional traffic on the network)
- Stackable:
- to 5 units high (only one unit in stack can be managed) in a managed stack
- to 2 units high in an unmanaged stack
- Stackable with 2624 and 2524 Hubs (up to 5 units high when a 2824 hub is the managing unit, and up to three units high when a 2624 is the managing unit.)
- Segmentable by unit and by 10 Mb/sec. repeater within each unit
- Smart Uplink Module Option (each hub can accomodate 1)
- Added address filtering to Smart Uplink (considered an option for 2824/2724)
- Three-year limited warranty
- Example of use: (animation)
  - Start with an existing 10 Mb/sec. network.
  - Before this unit debuted, you could replace hub with a 10/100 hub, and add new 100 Mb/sec. NICs.
  - But then you would have to carefully uplink and segment the two repeaters within the hub.
  - With the 2724 or 2824, you can have any combination of 10 and 100 Mb/sec. connections, on any port on the hub. All you need to do is change NICs in your computers - cables can stay in place.
  - This works because of bridging between two separate repeaters within the hub, which is transparent to the user.
  - And before this unit came out, if you wanted to hook up your 100 Mb/sec. hub to an existing Ethernet backbone, you would have to install a switch, and run a cable from the hub to the switch, then from the switch to the backbone.
  - But now you can use the new, improved Netelligent Smart Uplink module, which is an option on the new hubs. You can directly connect a hub or stack to your existing network backbone.

❖ Switches
- 5226 Ethernet Switch
  - Enterprise-class features now available at a price that is affordable for medium and large workgroup networks

- Offers aggressive pricing, high port density, and maximum network reliability.
- 24 10 Mb/sec. switched ports (10Base-T ports)
- 2 100Mb/sec. switched ports (100Base-TX uplink ports)
- Full- and half-duplex on all ports
- 6000 MAC addresses
- 8 MB shared buffering Memory
- 1.05 Gb/sec. backplane allows switch to move mass amounts of data
- Hot-swappable power supply
- Management:
- Includes CNMS, for SNMP Management
- Roving RMON support (collect RMON statistics on any port using any standard external RMON probe)
- VT-100 (Telnet or serial interface) management
- IEEE 802.1d Spanning Tree functionality (Optimizes performance and allows set up of redundant links for maximum up time)
- ASIC-based design (switching instructions implemented in hardware rather than firmware, giving higher performance and reliability)
- Three-year limited warranty
- Example of use: (animation)
  - Show 10 Mb/sec. devices (some PCs, some hubs) connected to ports. Show Server with 100Base-TX NIC connected to one of the 100Base-TX ports. Show another hub connected to other 100Base-TX port. In this way, large networks can be built by interconnecting smaller 10 and 100 Mb/s networks.
  - Since all ports can be full-duplex, in the configuration shown here, both the server and the other hub could have effective connections of 200 Mb/sec. to this hub.

- 5708 10/100 Auto-sensing switch
  - Ideal for collapsed backbone and departmental switch applications
  - 8 ports
  - Dual-speed 10 MB/sec. - 100 MB/sec. autonegotiation 10/100 on all ports
  - Full or half duplex on all ports
  - 4096 MAC addresses
  - Management:
  - CNMS is included
  - SNMP and Out-of-Band Management
  - High-performance non-blocking 1.6 Gb/sec. Cross-bar architecture (provides high-end performance for departmental and workgroup environments at a fraction of the cost of similar devices)
  - Non-blocking architecture allows multiple port-to-port sessions, increasing performance
  - Auto-adaptive features allow switch to change from ôstore-and-forwardö to ôcut-throughö modes automatically, helping to ensure peak performance at all times
  - Three-year limited warranty
  - Example of use: (animation)
    - This is our most versatile switch since each port supports either 10 or 100 Mb/s connections.
    - A segment is all the devices hanging off one port of a switch. In this example, the 10 Mb/s repeater and three 10 Mb/s PCs form a segment. The 100 Mb/s repeater and three 100 Mb/s PCs form another segment.
    - You can start with a switched 10 Mb/s network and migrate each segment one at a time to 100 Mb/s, using the same cabling.
    - Show server connected to a port of its own to maximize the bandwidth to the server.

- Routers
  - 8500 Communications Platform - software upgrade
    - Cisco Systems has done an enhancement to router software:
    - Firewall software is now built into router for first time
    - Input and Output Access Lists
    - IP Filtering
    - Un-numbered IP Support for ISPs
    - FX Support for Fast Ethernet
    - NLSP Routing Protocol Support
    - Upgrade is also available for current owners of 8500

- Software
  - Compaq Netelligent Management Software - version 2.0
    - Fault, performance, and configuration management
    - The best way to show you the new features in CNMS is to go through a quick session of working with it:
    - Start by connecting devices to network. Auto-discovery feature: Netelligent devices are automatically discovered on the network and placed in a window until the user places them in the topology map. The network type is not required, and it ôunclutterö the map of unnecessary topology icons.
    - Then you can drag the device icons to the workspace, and connect them to each other.
    - An important new feature is hierarchical maps. Multi-level maps - multiple sub-maps can be opened simulatenously. Maps are linked by geographical site, floors, and physical or logical sub-nets.
    - CNMS 2.0 also supports the new Netelligent products listed in this announcement. It supports NLSP and Access Lists for the Netelligent 8500 communications platform. It can upload configuration files from the router. And there is router configuration file association.
    - Trap/Alarm Filtering
    - VLAN support, already included for 5606 switch, now extended to 5708 switch (increases LAN segmentation flexibility by enabling users to selectively group ports together)
    - Demo version of CNMS will be available on Web
    - Upgrade will be available for current users of CNMS

- Communications Products
  - Modem is first part of new Netelligent communications line
  - Modems
    - 56K ISA fax/modem
    - 56Kb/s Data / 14.4 Fax
    - Supports K56flex Technology (allows fater downloads from 56Kflex compliant digital sources. Maximum achievable download transmission rates may not reach 56 Kb/sec. and will vary with line conditions.)
    - Flash upgrade to final ITU 56Kb Standard (expected in 1998)
    - Digital line protection (eliminates accidental modem failure in offices using confusing multi-jack outlets)
    - Multiple OS software support
    - V.80 Video Conferencing support in Firmware
    - Half Size ISA Card
    - Plug and Play
    - Includes Symantec/Delrina WinFax Lite
    - 56K PC Card fax/modem
    - Same as above, except in a Type II PC Card

- Conclusion
  - See MSGs for more information on service
  - NewViews and QuickSpecs available online for more information
  - Software updates are also posted online
  - Classes and seminars are held to help you design your network with Netelligent products.
  - We hope you enjoyed this video; please pass it on to your colleagues.

- Legal statements / credits